

**INDIANA DEPARTMENT OF TRANSPORTATION
MATERIALS AND TESTS DIVISION**

**CERTIFIED PRECAST CONCRETE PRODUCER PROGRAM
ITM 813-05P**

1.0 SCOPE.

- 1.1** This procedure covers the requirements for a precast concrete plant to become a Certified Precast Concrete Producer for precast concrete pipe, manholes, inlets, catch basins, grade rings, and drain tiles.
- 1.2** All precast concrete products are required to be in accordance with the Department Standard Specifications.
- 1.3** The values stated in either English or acceptable SI metric units are to be regarded separately as standard, as appropriate for a specification with which this ITM is used. Within the text, SI metric units are shown in parenthesis. The values stated in each system may not be exact equivalents; therefore each system shall be used independently of the other, without combining values in any way.
- 1.4** This ITM may involve hazardous materials, operations, and equipment. This ITM does not purport to address all of the safety problems associated with the ITMs use. The ITM user's responsibility is to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2.0 REFERENCES

2.1 AASHTO Standards.

- T 22 Compressive Strength of Cylindrical Concrete Specimens
- T 23 Making and Curing Concrete Test Specimens in the Field
- T 24 Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
- T 119 Slump of Hydraulic Cement Concrete
- T 121 Mass per Cubic Meter (Cubic Foot), Yield, and Air Content (Gravimetric) of Concrete
- T 141 Sampling Freshly Mix Concrete
- T 152 Air Content of Freshly Mixed Concrete by the Pressure Method
- T 196 Air Content of Freshly Mixed Concrete by the Volumetric Method
- T 280 Concrete Pipe, Manhole Sections, or Tile

3.0 TERMS AND ABBREVIATIONS. Definitions for terms and abbreviations will be in accordance with the Department's Standard Specifications Section 101 and the following:

- 3.1 ACPA.** American Concrete Pipe Association.
- 3.2 Addenda.** Any addition or deletion to the QCP.
- 3.3 Approved Lists.** A compilation of lists identified in the Department Standard Specifications that require products, sources, equipment or other specified items to be approved and on a list prior to consideration for use on a Department contract.
- 3.4 Audit.** An inspection conducted by an independent party selected by the ACPA or NPCA that verifies compliance with the Certified Precast Producer Program.
- 3.5 Certified Precast Concrete Plant.** A precast concrete plant certified by the ACPA or the NPCA, and in accordance with the Program.
- 3.6 NPCA.** National Precast Concrete Association.
- 3.7 Program.** The Department ITM for the Certified Precast Concrete Producer Program.
- 3.8 QCP.** The Quality Control Plan for the plant that is site-specific and specifies the production, policies and procedures used by the plant.

4.0 SIGNIFICANCE AND USE. The Certified Precast Concrete Producer Program is a program whereby the Producer takes responsibility for the production of quality precast concrete products in accordance with contract requirements, and the Department monitors the Producer's quality control procedures.

5.0 PRODUCER PERSONNEL

- 5.1 Management Representative.** The Management Representative shall be responsible for all aspects of production and quality control required by the Program at a Precast Concrete Plant and be the liaison with the Department.
- 5.2 Quality Control Technician.** The Quality Control Technician shall be an ACI Concrete Field Testing Technician, Grade I.

6.0 MATERIALS. Materials incorporated into the precast concrete products shall be in accordance with the following:

- 6.1 Admixtures.** Chemical admixtures shall be included in the Department List of Approved PCC Admixtures and Admixture Systems.
- 6.2 Aggregates.** Aggregates shall be in accordance with ITM 203.
- 6.3 Cement.** Cement shall be included in the Departments List of Approved Cement Sources.

6.4 Pozzolans. Pozzolans shall be included in the Departments List of Approved Pozzolans Sources.

6.5 Reinforcing Steel. Reinforcing Steel shall be included in the Departments List of Approved Certified Uncoated Reinforcing Bar Manufacturers.

7.0 MATERIALS TESTING. The Producer shall test the precast products in accordance with the following test procedures:

Test	Test Method
Absorption	AASHTO T 280
Air Content (Pressure Method)	AASHTO T 152
Air Content (Volumetric Method)	AASHTO T 196
Compressive Strength	AASHTO T 22
Concrete Cores	AASHTO T 24
Making and Curing Concrete Specimens	AASHTO T 23
Sampling Concrete	AASHTO T 141
Slump	AASHTO T 119
Three-Edge Bearing	AASHTO T 280
Unit Weight	AASHTO T 121

8.0 PRODUCT MARKING. Precast concrete products shall be marked with the date of manufacturing, Department plant number, and ACPA or NPCA certification identification marking.

8.1 The ACPA product marking shall be the “QCast” emblem.

8.2 The NPCA product marking shall be the words “NPCA Certified Product.”

9.0 QUALITY CONTROL PLAN. Each Producer providing precast concrete products under the Program shall have a written QCP which shall be plant specific and be the basis of control. The QCP shall contain, but not be limited to, the methods of production and quality control policies and procedures used by the plant. The QCP shall be in accordance with ACPA or NPCA Plant Certification requirements and the Program.

10.0 CERTIFICATION.

10.1 Each plant requesting to become a Certified Precast Concrete Producer shall do so in writing to the Chief, Materials and Tests Division. The request shall include a copy of the compliance certificate issued by the ACPA or NPCA, a copy of the most recent audit conducted in accordance with the ACPA and NPCA certification programs, a copy of the QCP, and the designated Management Representative for the plant.

10.2 Each plant meeting the requirements of the Program will be certified upon verification of the required documents of 10.1.

- 10.3** Each certified Precast Concrete Plant is required to submit to the Materials and Tests Division a copy of the annual audit verifying compliance with the ACPA and NPCA certification programs.
- 10.4** In the event of a change in ownership of the Certified Precast Concrete Producer, the certification shall expire on the date of such change. The new ownership may avoid expiration by submitting a statement to the Chief, Materials and Tests Division indicating recognition of the details of the Program and verification that the plant is in accordance with the ACPA and NPCA certification program requirements.

11.0 DEPARTMENT RESPONSIBILITIES.

- 11.1** The Department may conduct annual audits on a random basis of each Certified Precast Plant.
- 11.2** The Department will maintain the List of Approved Certified Precast Concrete Producers.
- 11.3** The removal of a plant from the Department's List of Approved Certified Precast Concrete Producers will be the responsibility of the Chief, Materials and Tests Division. The Producer shall have the right to appeal the removal from the Department's List of Approved Certified Precast Concrete Producers to the Engineer.